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ADJUSTING THE COLLEGE TO AMERICAN LIFE[1]

FROM a constructive point of view, the existing college represents for the most part tendencies rather than design. It has in the main simply come to be what it now is. True, the gardeners have pruned a bit here and tied up a bit there. But the hedge has been trampled down, and things have been suffered to grow with less regard to the demands of the market than to the fertility of the soil. Provisionally, this style of farming has its advantages. It at least instructs us as to what will grow under given conditions. There comes a time, however, when indiscriminate abundance and variety must submit to a process of evaluation; when wasteful natural productivity is no longer best adapted to meet the demonstrated or calculable needs of a well-defined social organization; when, in a word, we must ask which part of the crop has value, and to what end. This necessity is, I take it, reflected in the question proposed for to-day's discussion.

Two things have happened in higher education during the last thirty years: in the richer and more progressive sections of the country the traditional one-curriculum college has been practically demolished; the graduate school has been evolved. The demolition of the old-fashioned college helped, of course, to make a clearing for the graduate school, and the concurrent growth of the graduate school

[1] An address given before the Section of Education at the Baltimore meeting of the American Association for the Advancement of Science.

hastened the completer demolition of the college. But educationally the two phenomena are not the same. We can neither appreciate nor escape our present plight, until we hold them in thought at arm's length from each other—in thought, for summary geographical sundering of the one from the other is not at this moment advocated, I believe, by anybody.

I say the old college has gone to pieces. But it has not simply gone to pieces, leaving a dust heap to mark its site. It has perished as perishes a frontier town, in the very process of conversion into a modern city. The significant aspects that meet the eye are not so much the evidences of dissolution as the preparations for a new, more commodious and more substantial structure. The college has increased its resources, it has undertaken to serve a far wider range of social activities by frankly conceding the culture-value and dignity of science and of the useful arts. This extension of scope saved it from extinction, at the same time that it procured for the college a far more vital function than it had previously discharged. The historian of our educational history will, I believe, speak of this successful transformation as the great educational achievement of the generation following the Civil War—an achievement destined to be permanently associated with the name and leadership of President Eliot.

On the other hand, from the standpoint of the incoming generation, it is fair to regard the college situation as still undetermined. I have used the word "preparations" advisedly. The college has in hand the elements out of which effective schools may some day actually be made. But they have not been made as yet. Except in the realm of technical education, the college is still almost wholly unorganized. The question inevitably arises whether educational organization at the college level must be limited to the technical field; further, whether it is only the technical instinct that discloses itself during adolescence; finally, whether other types once made out may not be equally amenable to organized educational treatment. In a previous discussion[1] I excluded the technical school, not because it ought to be severed from the college, but because criticism aimed at collegiate chaos does not lie as against the technical departments. I hope now to show that, so far from having no bearing on the academic situation, the technical school, whatever its present defects, is really highly suggestive. The college recognizes the technical motive, stimulates and rewards its expression by providing for it adequate and continuous discipline. It has no fear of wrecking a youth who expects to be an engineer by encouraging him to know his mind at eighteen; in other cases, however, it keeps hands off for fear of doing violence to what is deepest in social and individual activity. Hence, the college outside the technical field now almost entirely avoids definite formulation on the educational side. Once a minimum of content and a maximum of organization, it is now a maximum of content and a minimum of organization.

It is as though a great clearing had been made to which stone and timber, lime and sand have been hauled in large quantities. But neither architect nor builder appears. Meanwhile the neighborhood children play at building with the material. They pile up rambling inconsequential structures that quickly collapse into as many shapeless separate heaps. The brick and stone are college courses; the separate heaps represent individual curricula; the children building without eventual purpose are college students; and the utter absence

[1] "The American College," p. 48, etc.

of connective mortar or controlling design is the elective system!

The college development of the last thirty years amounts, then, from our present standpoint, to educational opportunity rather than educational achievement. Meanwhile the graduate school can not be characterized in similarly negative terms. Its activity in accumulating and refining material represents positive achievement of the highest order. But not college achievement; a serious pedagogical misconception is involved in embracing college and graduate work in a single appreciation. Research is essentially a post-collegiate affair. Not, of course, the research-spirit: that belongs to every stage of modern education; it has its place in the elementary school, in the secondary school, in the college, in each of which the pupil gets some of his motive power from an active curiosity, a distinct tension or problem-sense, far more efficacious in disclosing and disciplining power than a didactic routine smacking strongly of authority. When I urge that the college is not the place for research, I do not say that it is not the place for the research spirit; I do not say that originality, initiative, native reaction on the student's part, are not to be sought after. What I mean is that these essential qualities are not developed only in searching or researching for new material; they are just as readily evoked in situations that are old, provided only the situations be real, pressing, vital and in so far novel to the boy. Thus the research spirit freely stimulated through childhood and adolescence provides background and basis adequate both to suggest and to support genuine problems. Lacking this, problems are given to, not felt out by, the student. This distinction can be made with infinite advantage to both college and graduate school. Failure to perceive it has led to the premature forcing of research and research workers upon the college, as if only thus college studies could be vitalized. Of course, if it is true that research can alone keep teachers from outright ossification, haste must be made to introduce it into the secondary and primary schools, where it is equally important to have teachers who can bend without breaking. The fact is, however, that some men have totally dried up while researching; that others keep their effervescent sparkle without research by cultivating an open and ready responsiveness to novelty, regardless of whether it issue out of the narrow limits of the university laboratory or out of the great laboratory of human life itself. It is absurd to ignore the stimulus of modern life at large and to emphasize exclusively the aspects of activity represented by the academic workshop. All the live men are not laboratory investigators; nor are all the investigators keenly alive. Now then, research in the eulogistic and narrow sense concerns itself altogether with the employment by mature intellects of a powerful technique for the express purpose of increasing or refining knowledge. For this sort of thing the graduate school is the proper place; and the graduate school in its brief history has contributed substantially to increase our intellectual store of precious metal.

The college was enabled at a critical juncture to import generously from the newly established and highly productive laboratories and libraries; but the very bounteousness and suddenness of the enrichment operated to hinder the growth of definite conceptions of college function. The lack of adjustment, which our topic confesses, originates just here. The concern of the college is with students, not with stuff. Adjusting the college to life means the pedagogic assimilation and organization of this accumulated and accumulating material; bringing it to bear

in essential social and individual functions. It does not mean pushing the boundaries of science a little farther into the still unexplored regions of the north, but rather employing our scientific resources to make life itself more highly intelligible and satisfying; it means not delving more deeply for such fragments of historic detail as may have hitherto escaped detection, but making our historic and ethical knowledge tell, in comprehending and rationally modifying what now is. This is a different thing from merely mining for additional facts; a different thing from just getting to know the stock on hand. The business of the college is human and disciplinary, formative and cultural. Its important relations are to *society,* not to *knowledge,* as such; relations *through* knowledge, rather than *to* knowledge. Knowledge is its tool, not its end. From the college point of view, knowledge is just so much raw material, and the more refined, abstract, logically separate and complete, the rawer it is; the more it needs reconstruction, digestion, recombination in ways suggested from the boy's side by genetic psychology, from the social side by the forms into which at a given epoch common activities have been differentiated.

Surely this is what "adjustment" means. When we talk of adjusting the college to life, we mean in plain language working out a concrete educational scheme which will adjust each individual boy to the concrete social situation. Of course this is not all we mean. Education is something more than a mere adjustment. It is also concerned with developing demands on the child's part calculated to upset the existing adjustment. The child must be, in a word, fitted to play his part; straightway that part and the actual social order including it offend his awakened rationality. It is then equally the business of education to fit him to assist in further progress. The college is in this respect but the culmination of, not fundamentally disconnected from, the elementary and high schools. Throughout all these stages of growth and adjustment, education contemplates an actual emergency—a here and now, made up of ascertainable factors. Such a situation can be either superficially or profoundly analyzed in the effort to reach its essential constituents. The elementary school analyzes it largely from the physical and impulsive sides. The high school penetrates farther on the civic and ethical sides; on the individual side, it distinctly seeks to exploit the boy in the hope, among other things, of disclosing the particular way in which he can himself function in society. On both sides the college must proceed still further. Individual differentiation on vocational lines comes in the college period still more sharply to the front; simultaneously, it is all the more important, if the college is to make good the alleged breadth of its discipline, to open the boy's eyes to what is characteristic and significant in the life that is to be the background, basis and standard of all his subsequent activity. An educated man is, in a word, a citizen of the world, of his time, of his nation, just as really as he is a member of a craft, a profession, or a union. And he needs specific training for the former as for the latter.

The common backbone of an adequate educational scheme is thus suggested. Practically the best that the college can now count on in this matter from previous education is a fair knowledge of the facts of our own and English history and some appreciation of the workings and ideals of our own institutions. Hence the college is at once confronted with the necessity of working out a common discipline which will give all students alike a wider outlook,

a deeper grasp of facts, a keener sense of their significance. Unless educated men meet upon such common basis and interest, education, instead of bringing our resources to bear most effectively on the conscious purpose of society, tends to detach disciplined minds from each other and from a common object. The high school comes too soon to do this; the professional school too late. A vague sense of this obligation the college still betrays in clinging to catchwords like "broad," "liberal," "training for citizenship," "training for character." But one can lay one's hands on nothing definite in the curriculum that is actually calculated to make for breadth, liberality or citizenship. The subjects are not there; the treatment is distinctly hostile. At best, special, not general, individual, not basic, needs dictate the composition of the student's course of study. Now, without a curriculum organized and presented with this clearly conceived object in view, what reason is there to believe that the student possesses either the intelligence or the impulse to construct for himself a discipline from which he will emerge with the necessary comprehension and disposition? He lacks the requisite knowledge, purpose and intelligence; and as a democratic society aims to realize not instinctive, but rational ideals, it would be strange indeed if every boy who had read Cæsar and studied algebra already felt the sure ethical and speculative solicitude which it is precisely the task and difficulty of education to develop within him. That is a matter which a society endeavoring to realize conscious ideals through its own corporate action does not leave to the discretion of the individual boy. Of course, it will prize the will or instinct, if he chances to possess it; it will set about creating it, however, if he doesn't. Such training is in the highest sense formative, cultural, human. It suggests a field of college pedagogy which will be opened up for settlement and cultivation when the outposts of research are withdrawn to their own proper territory, just as a secondary school pedagogy will become possible when the college vacates its mechanical and unintelligent control. Contemplating this broad general outlook or basis for all college students, regardless of the special activities which as individuals they may pursue, Professor Mann has recently sketched a college treatment of science that falls in completely with this view:

> It would seem, then, that for the normal non-specialist the present instruction in laboratory science, with its wealth of exactness and technical detail, is a misfit. What is needed for these general students in college is a discussion of the bearing of science on the history and present forms of social and economic life, with no laboratory work of the present sort, rather than the customary re-hash of a subject-matter from which the juice should already have been pressed. In other words, the college course in science should try to give to the student who seeks breadth and culture a new and enlarged view of the value and the bearing of science in human life, rather than to fill him with a more detailed and more highly specialized mass of information, which, at his age, ordinarily interests him but little and arouses his enthusiasm even less.
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> Looked at from this point of view, a course in science in college would be very different from any now given there. If the science were physics, the proposed course might begin with a discussion of the steam engine. Attention should be given to the social and economic changes conditioned by or closely connected with the development of the steam engine, and of its application to manufacture and transportation. When the steam engine was finished, electricity might be taken up in the same way. The electric telegraph and the dynamo and the telephone have certainly affected economic and social life in a powerful way, and played an important part in bringing about present conditions. The entire subject of electricity could easily be brought, if desired, into a discussion of the subject from this point of view. Practical appliances like those just mentioned should not, however, receive all of the attention of the class. The achievements in pure science must not be neglected. Thus the Copernican system of astron-

omy has certainly had a tremendous effect on our intellectual and spiritual life. The important points are briefly these: (1) For the specialist in science or in engineering, college laboratory work of the right sort is an essential part of his professional training. (2) For the non-technical or general student, college laboratory work is neither essential nor desirable; the emphasis in this case should be laid on the services of science in developing and maintaining intellectual, social and economic life.

Thus the college will have made the first step towards a definite adjustment to the conditions of life, when it has worked out a fundamental, common basis which takes up the essential and significant factors of actually extant activities. It has next beyond this a specific duty in reference to each individual, the duty of preparing him for his particular function in just this same society. The particular function of the student must then at this moment be decided: on native lines, if possible, but decided, in any event. As to this I shall have a word to say presently. Just now I point out that the valid scope of election can extend only to such choice of individual function. That choice once made, it is the business of the college to devise the educational procedure that will give it effect. The task is made generally possible of achievement by the fact that modern society has already been differentiated into certain typical forms, a process rapidly going further. The tendency is not without dangers, which would, however, be partly combated by the general cultural procedure already suggested, and partly otherwise. To ascertain what the types in question are and what the lines of training adapted to each, the college must again recur to the existing social situation, in order to discover the forms in which individual energy plays and to work out for each its appropriate pedagogical expression. It is needless to attempt a list of these types now. That again is a task for the college pedagogy yet unborn. Local as well as general conditions here come into play; not impossibly the attempt to recognize and to develop such types may lead to a differentiation among colleges, each of which will then perhaps no longer seek to be all things to everybody. For purposes of illustration, having already touched upon engineering, I confine myself now to the well-defined professions of law and medicine and to trade. In each of these we must organize a curriculum which will constitute an effective preparation for a subsequent training that, once begun, can not afford to concern itself with preliminary matters, and that will also relate the career in question to social life at large. In general, instruction on these lines must be liberally and not just technically conceived. Take the case of medicine. The college will, within its limits, train broadly when, free from any immediate technical responsibility such as exists in the professional school itself, it presents every subject philosophically as well as technically. The student of biology, physics and chemistry is thus on the technical side preparing for the study of medicine; meanwhile the bearing of modern scientific methods and discoveries on the whole trend of social speculation and activity may be simultaneously made clear to him. If we exclude the distractions that are now largely through administrative timidity suffered to consume much of his time and energy, and organize his instruction, as to both substance and method, with a clear notion of what we are driving at, the college years amply suffice for the thorough two-sided treatment of the scientific basis of subsequent medical study.

The argument holds equally in reference to law. I submit that a careful analysis of the function of the lawyer in modern society will suggest a very definite preparation for his career, though the col-

lege now puts no particular pressure upon the future law student to find himself. The lawyer nowadays is two things. He is obviously a practitioner. For this line of activity he can doubtless be admirably prepared by a sharp and severe technical drill in the law school. So far, he is only the clerk of his clients. But he is in reality much more than this. He is the main agent in adapting the great institutional arrangements of society to its progressive movement. As judge and legislator, it is the lawyer who interprets, embodies and guides deep social and ethical currents. True enough, few lawyers as yet appreciate and deliberately prepare themselves to exercise this function; hence their resistant, anti-social, obstructive bias. But the college that seeks to train a race of intelligent broad-gauge men will embrace the opportunity to produce through a profound study of ethical and industrial forces and developments a race of lawyers whose later technical acquisitions and point of view will be conditioned by a large consciousness of their constructive social responsibility. The lawyer is in large measure obstetrician to the future: whether the birth will be painful or gentle depends in no small degree on the skill, intelligence and large-mindedness with which our lawyers frame, apply and judge our laws. We live in a legal and institutional framework that was built to protect us against dangers, many of which no longer exist. Meanwhile totally different emergencies have arisen. The question to be solved through and, to a considerable extent, by our lawyers, is whether these institutions can be adapted to new conditions without interruption of historic continuity. To appreciate their problem, to get in possession of the data bearing on it, the lawyer of the future must rest his specific legal training on an adequate grasp of the tendencies, perplexities and rational ideals that are seeking to utter themselves. Once more, such training must be had in the college, if it is to be had anywhere. I repeat, the high school comes too early; the professional school is too busy and too late. And the training in question must be worked out *for* the boy, not *by* him. That such preliminary training would be in the truest sense liberal as opposed to the immediately technical, vocational or professional, can, I think, not be seriously disputed.

An analogous course of reasoning applies to business. It is perfectly possible even now to organize a course of study calculated to prepare a youth to engage efficiently in commerce and to take broad and intelligent views of the part that at this moment commerce plays in promoting national development and in realizing rational ideals. This, I conceive, would be a liberal, cultural treatment of the trade-motive. That such an attempt would not now be premature, Harvard has proved by organizing a school of business administration. Unfortunately, it is a graduate school, thus illustrating once more the tendency to empty the college of all definite content and responsibility. A student intending to embark in trade is compelled, before he can enjoy the opportunities of the graduate school of business administration, to spend four years in college, doing nothing in particular, before he can at twenty-three get tardy leave to spend two more years preparing to be an intelligent business man. The analogy followed in making the school a graduate school is that of law and medicine: a mistaken analogy, as it seems to me. The student who gets his degree in law or medicine is a lawyer or a doctor. The student who passes through the graduate school of business is not a business man. He has accomplished in reference to business exactly what the preliminary training in biology

and chemistry has done for the intending physician, and analogy would therefore require that the business school become a differentiated college type analogous to the differentiated college types looking forward to law and medicine. The catalogue explains the graduate constitution of the school on the grounds that students must be mature and that the work is specialized and technical. I confess that to me it appears neither more difficult nor more highly specialized than many of the courses provided for undergraduates. Harvard opens to ordinary undergraduates courses in statistics, the economics of transportation, banking and exchange, labor problems, corporation economics, public finance, taxation, railroad practise, principles of accounting, principles of law governing industrial relations, not to mention others like the theory of crises, to which undergraduates may be admitted. Is it possible to make the slightest distinction on the score of difficulty or technicality between the courses just mentioned as open to undergraduates and the following, constituting the business courses, from which they are excluded: economic resources of the United States, industrial organization, banking, railroad operation, municipal business? Neither in the necessary maturity of the students nor in the special or technical character of the topics is there the least difference. The real consideration lies here: the college is so disorganized and usually so averse to definite conception of function and to maintenance of standards adequate to future use, that whatever is serious, organized and definitely purposeful tends to become post-collegiate. Had the college been given to organization and serious standards, the graduate school of business would have made an additional college type resting upon the same general basis as the legal and medical types; and the subjects composing it would be pursued and presented in both their technical and their liberal bearings.

The proposed organization of the curriculum on the basis of differentiated social types differs essentially from the so-called group system. The group system presents combinations on departmental lines: Latin and Greek, biology and chemistry, mathematics and physics. The two subjects forming a group belong, as a rule, closely together, and they enter into combination as linguistic or scientific entities detached as far as may be from practical or social concern—which detachment is, by the way, accounted an advantage from the cultural standpoint. The logical or departmental integrity of the subject becomes thus as prominent in the college as in the graduate school, where conditions and aims are so very different. To my thinking, the college thus goes far towards defeating its own cultural purpose. I do not pretend, of course, that the culture value and the scientific value of biology, for example, are two separable elements; my meaning will be clear from an educational point of view when I say that the cultural importance of biology to the college student comes out when, in addition to his mastery of biological science as such, its history, its applications, its influence on the development of thought, have been explicitly brought forward; when, in other words, the vocational bearing and the social significance of the vocation in question supervene upon the strictly scientific study. Our present college methods of handling science suffer not from too much, but from too little vocational and professional insight. Of course, the vocational handling of biology may readily be just as narrow as the scientific. But an intelligent treatment, such as the college is the place and has the time for, so far from confining the student to mean ends, will open his eyes to

the social and philosophical significance of the activity to which his college studies lead and upon which he will presently embark. Such a treatment the group system, dealing with subjects as subjects, does not essay.

It is, in other words, quite clear that under modern conditions whatever breadth of intelligence the boy attains—and this is, I take it, mainly what is meant by culture—has to be got *through* his activities—social and individual—and not as *against* them or in their despite. This is the fact on which the elective system is based, whether in the unorganized form now in common use or in the organized form which I am urging. So far, a common argument protects both; the diversity of college opportunity corresponds to the diversity of social need. It can not be arbitrarily abridged or reduced. Selection is inevitable; let it be made as economically and effectively as possible. At this point the cultivated man becomes apprehensive. He fears that election dictated by personal bent or professional need may dwarf the student, mind and soul. To some extent this danger will have been frustrated by the common organic basis which, as has been pointed out, should lie below all individual selection whatsoever. Beyond this, the elected studies must be so handled as to avoid the reproach of narrowness. It is in any event inevitable that a rightly elected college course will presage the student's practical destiny. The same factors determine both—capacity or bent, if he has it—otherwise, opportunity, environment. In the common run of cases, unless the student is a Dr. Jekyll in college and a Mr. Hyde out of it, the two phases will be harmonious. The business and glory of the college are then, not stupidly to ignore or vainly to resist the vocational factor, but deliberately to develop in advance its cultural meaning and possibilities. The disappointment with which we now survey results is to be ascribed to our failure to do this very thing.

The main difficulty in putting into operation the policy I have suggested relates to finding proper teachers. I must touch this vital consideration very briefly. The colleges are apt to attribute their pedagogic shortcomings to lack of teachers; I attribute the lack of teachers to the pedagogic shortcomings of the colleges. Our colleges have done little or nothing to develop teachers; they have emphasized, rewarded and competed for specialists. The college function has been lost in the eagerness to encourage research. Now it has at length been found that the two functions are not identical; that men trained to do the one can not equally well do the other. That certain individuals may profitably do both, that the college and the graduate school are closely related, that they may often best flourish in one institution; all this may be admitted, while still maintaining that the crying need of our academic life is for the creation on the part of college authorities of conditions and ideals that will permit a race of college teachers to grow up and to survive.

A college organized along the lines above laid down could, as it seems to me, claim a certain degree of adjustment to modern life, taken as a whole and equally in reference to its constituent activities. I am not unmindful of the fact that such college organization presupposes a different type of secondary school from what we now possess. This opens up a subject I can not now discuss; but I will say this, that an intelligent secondary school pedagogy, such as is already struggling against college pressure to assert itself, may quite conceivably, among other things, succeed in disclosing the youth's essential affinities, dealing with him, as it would, freely dur-

ing the most characteristic and expansive epoch of his life. Despite conditions extremely unfavorable to decisive choice, statistics, roughly compiled for me, seem to indicate that perhaps seventy-five per cent. of the members of the first-year law classes at Columbia and Harvard knew while in college that they would study law afterwards. This would, I think, justify the college in the very definite procedure that I have advocated. In the case of the engineer, the college even now requires an early decision, followed by continuous hard work; it is difficult to see why either the decision or the hard work should be restricted to prospective engineers.

In the last event, supposing that no bent is revealed—and it seems to me absurd to treat the matter as if every schoolboy has some biologically grounded fitness for some one particular calling—I am inclined to believe that it is wasteful and demoralizing to encourage dispersion by the unregulated opportunity to modify, retract and get lost. The college would do better to treat the vagrant with the wholesome rigor that society employs without compunction in the case of the working boy who, in default of a distinct gift or bent, is arbitrarily apprenticed at sixteen. Would it be better if he were maintained as a parasite until such time as he really concluded at his leisure whether he preferred to be a carpenter or a mason?

Several causes have combined to prolong the chaotic condition of the college. In the first place, college administrators have been terrorized or hypnotized by the term culture. For a long while it was identified with a perfunctory knowledge of Latin and Greek grammar and a few books of Cæsar, Xenophon, and perhaps Virgil, and was sharply antithetic to anything that could possibly be of any use. This is mere rubbish. There is possible a liberal or cultural or philosophic treatment of a man's primary practical concern; and the college which does not occupy itself with such interests in just that spirit has lost an important reason for existence. All these antitheses between vocation and culture, science and culture, business and culture, have got to be resolved by a breadth of treatment which absorbs both. Treated in a vital human spirit, every interest of human faculty is culture. The classics may be—and usually are—sterilized so as largely to lose their culture-value; and science may be humanized and thus gain it.

An equally disastrous bogey has been freedom. We are forbidden to adjust the college to existing social conditions through definite organization, subject to revision as society develops, on the ground that the boy can be disciplined to freedom only through freedom. This absolutely negative conception of liberty, having been thoroughly discredited in politics, economics, philosophy, has trekked over into the educational field, after having been shown the door everywhere else. Now in education, as in economics, liberty interpreted as the absence of organization is of provisional service only in relatively brief periods following the abolition of purely arbitrary restrictions. Under such conditions, it allows repressed, ignored, unknown tendencies to disclose themselves; it permits the real factors in a situation to be ascertained, to the end that, once known, they may within limits be controlled in reference to deliberate design. Our real freedom is thus enhanced, not destroyed. We triumph over limitation only by submitting to it. Mr. Santayana says:

> The only artists who can show great originality are those trained in distinct and established schools. It is only in recent times that discoveries in science have been frequent, because natural science until lately possessed no settled method, and no considerable fund of acquired truths. So too in political society, statesman-

ship is made possible by traditional policies, generalship by military institutions, great financiers by established commerce.

To the same effect, President Pritchett has lately said, speaking of education:

> Organization which is wise, which respects fundamental tendencies and forces, which separates incongruous phases of activity, may not only add to the efficiency of educational effort, but may offer a larger measure of freedom than can be hoped for in chaotic and unrelated efforts to accomplish the same ends.

Even in the home of academic freedom the force of these words can be illustrated. For the honor degrees at Harvard are conferred only after the completion of certain correlated and combined courses, selected *for,* not *by,* the student. Does not this fact plainly indicate that where seriousness begins, there some form of enforced coordination begins also?

The objection to negative freedom does not, however, drive us back to positive, but arbitrary restriction. Still less can the difficulty be met by the illogical Yale-Princeton compromise, according to which the student gets practically two years of each—the freshman and sophomore years devoted to conventional restrictions, the junior and senior years to negative freedom, qualified though it is by the inevitable mechanical inconveniences of the time-table and a few departmental sequences. In considering only the two alternatives here in question or their combination in equal consecutive parts, the colleges overlook altogether the organic character of a genuine educational solution.

I should like briefly to touch another essential point. It is absolutely futile to talk of adjusting to life an institution of such easy virtue as our present college. Perhaps its demoralization of standards simply expresses the fact that, as it serves no particular educational purpose, it is immaterial whether the student takes the thing seriously or not. But a college organized on the lines I have suggested has no other choice but seriousness. We still bear traces of our English collegiate origin in the familiar twaddle about the college as a sort of gentlemen factory—a gentleman being a youth free of the suspicion of thoroughness or definite purpose. Now, I grant that as long as a single required course was forced upon every student, it would have been absurd to require the same sort of performance of every one. The prospective don could fairly be held to a standard not applicable to the future country squire. But the elective system —organized or unorganized—knocks the props from under the gentleman, or citizen —as he is sometimes called. It proposes to do for each student what he needs. It is thus illogical not to require a high grade of excellence of all alike. Ineffective performance can no longer be excused on the ground of the irrelevancy of the task. The tolerant attitude of the college towards every form of individual capacity and social opportunity compels a serious treatment on both individual and social grounds.

The fact that the college has so frequently demoralized rather than stimulated occasionally leads men who have been developed by the struggle for opportunity to look upon mere abundance of opportunity as itself disastrous. Our strong man of the last generation had to fight for his chance; and that was the making of him. A costly discipline, to be sure, but not altogether a bad one. To-day, far better opportunities than he fought for are easy and accessible. The struggle of our children must then be not *for* opportunities, but *within* them. The college offers the chance, it makes every concession to individual capacity and disposition. It must demand, therefore, a genuine performance at every point. To make opportunities

abundant and standards low is thoroughly immoral.

Abraham Flexner
Carnegie Foundation for the Advancement of Teaching

A DANGER ARISING FROM THE POPULARIZATION OF THE COLLEGE[1]

I wish to speak of a danger which threatens the American college as the result of changes in the work of the college and in its environment whose joint effect may be summed up in the phrase, "the popularization of the college."

The history of the American college begins about the close of the first third of the seventeenth century, Harvard College having been founded in 1637. The traditional college curriculum, which was not radically changed till about the middle of the nineteenth century, was largely due to the intellectual conditions of the seventeenth century. When Harvard College was founded, there was very little to be studied, beyond the rudiments of a common English education, excepting Latin, Greek and Hebrew and a little mathematics. At that very time Descartes was shaping the outlines of the method of coordinates in geometry, but the world had still to wait half a century for the invention of the calculus. A half-century was to elapse before Newton's great discovery of gravitation gave unity to the conception of the universe. Almost a century and a half was to pass away before the discoveries of Priestley and Lavoisier created the science of chemistry. The "Systema Naturæ" of Linnæus did not appear until Harvard College was already a century old. A century and a half was to elapse before geology and paleontology took shape under the hands of Hutton and Cuvier. It was almost a century and a half before Adam Smith's "Wealth of Nations" laid the foundations of the modern study of economics. It was more than half a century before Locke's "Essay on the Human Understanding" opened the discussions of the modern period of philosophy. More than two centuries were to elapse before the study of language took on a scientific form in Grimm's "Geschichte der deutschen Sprache." Two editions had already appeared of the collected plays of Shakespeare, but as yet no one dreamed of English literature as standing on a par with the great classic literatures as an object of study; and still less would it have occurred to any English-speaking educator to think of the literature of any other modern language as a worthy object of study. The ancient languages and a little mathematics formed about all the educational material that was accessible in the seventeenth century, and it was nothing strange that the curriculum developed in the environment of that age survived for a considerable time after the environment had changed. But the old curriculum has now become thoroughly extinct. The new branches of learning which have developed in the last three centuries have come to take a dominant position in the education of youth, as in the thought of manhood. The wealth of educational material at present available is vastly larger than any one can deal with in the brief years of the college course. Everywhere the fixed curriculum has given place to the elective system. With the recognition that the field of learning is so large that no one can secure even an introduction to all departments of it in the college course, the elective system has become a practical necessity. From the vast variety of attractive and useful studies each student is rightly left to select, in

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